

## Claims

- [c1] 1.A bar-code reader comprising:
  - a judging unit that judges number of modules corresponding to a character from character data read from a bar-code; and
  - a demodulating unit that, if the number of modules judged is different from a predetermined number, demodulates the character by using a demodulation-pattern table corresponding to the number of modules judged.
- [c2] 2.The bar-code reader according to claim 1, further comprising a consecutive judging unit that judges whether the number of modules judged is judged to be different from the predetermined number consecutively for a plurality of times, wherein the demodulating unit, if the consecutive judging unit judges that the number of modules judged is judged to be different from the predetermined number consecutively for a plurality of times, does not demodulate the character.
- [c3] 3.The bar-code reader according to claim 1, wherein the demodulation pattern table is provided for a number that

is less than the predetermined number by one, and the demodulating unit displays, if the number of modules judged is different from the predetermined number and from a number that is less than one of the predetermined number, predetermined candidates characters on a displaying unit for selection of a character by a user.

- [c4] 4.The bar-code reader according to claim 1, further comprising a module-judgment-data outputting unit that extracts a basic frequency equivalent to a unit module of the bar code based on a signal acquired by reading the bar code and outputs module judgment data according to a point in time that is synchronized with the signal and has the basic frequency, wherein the judging unit judges the number of modules based on the module-judgment data.
- [c5] 5.A method of reading a bar-code, comprising: judging number of modules corresponding to a character from character data read from the bar-code; and if the number of modules judged is different from a predetermined number, demodulating the character by using a demodulation-pattern table corresponding to the number of modules judged.
- [c6] 6.The method according to claim 5, further comprising judging whether the number of modules judged is

judged to be different from the predetermined number consecutively for a plurality of times, wherein the demodulating not demodulating the character if it is judged that the number of modules judged is judged to be different from the predetermined number consecutively for a plurality of times.

- [c7] 7.The method according to claim 5, wherein the demodulation pattern table is provided for a number that is less than the predetermined number by one, and the demodulating includes displaying, if the number of modules judged is different from the predetermined number and from a number that is less than one of the predetermined number, predetermined candidates characters on a displaying unit for selection of a character by a user.
- [c8] 8.The method according to claim 5, further comprising extracting a basic frequency equivalent to a unit module of the bar code based on a signal acquired by reading the bar code and outputting module judgment data according to a point in time that is synchronized with the signal and has the basic frequency, wherein the judging includes judging the number of modules based on the module-judgment data.